

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number
WO 2003/104765 A3

(51) International Patent Classification⁷: G01N 9/24, 11/00

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZM, ZW.

(21) International Application Number:
PCT/US2003/018164

(22) International Filing Date: 10 June 2003 (10.06.2003)

(25) Filing Language: English

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English

(30) Priority Data:
60/387,325 10 June 2002 (10.06.2002) US

Published:

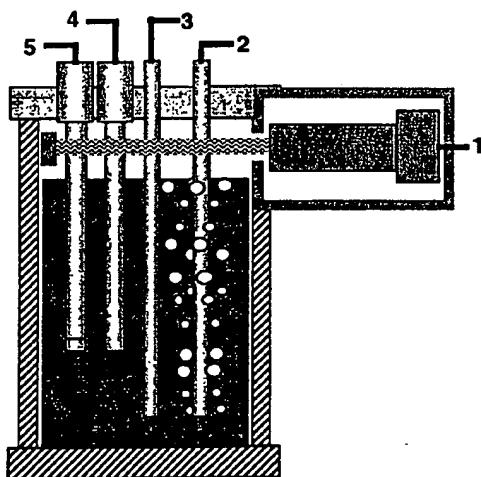
- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

19 August 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TOTAL ORGANIC CARBON (TOC) ANALYZER



(57) Abstract: The invention disclosed is a total organic carbon (TOC) analyzer comprised of an electrochemical cell comprising a diamond-film electrode (2) doped with boron or other conductivity including material. The diamond-film electrode is the working electrode and carries out the oxidation of TOC to produce carbon dioxide. The apparatus further comprises sensors for detecting the carbon dioxide produced. Such sensors include but are not limited to a tunable diode laser (1) and/or ion-selective electrode (5). The invention also discloses a method for measuring TOC in an aqueous solution using a total organic carbon analyzer.

WO 2003/104765 A3